

## **DNA CREATING A NEW 3130 PROTOCOL**

### **A. SCOPE**

- A.1 This protocol outlines the steps taken to create a new 3130 protocol for use with samples amplified using GlobalFiler, PowerPlex 16 HS or YFiler. An instrument protocol contains all the settings necessary to run the 3130, to include protocol name, type of run, run module and dye set.

### **B. QUALITY CONTROL**

N/A

### **C. SAFETY**

N/A

### **D. REAGENTS, STANDARDS AND CONTROLS**

N/A

### **E. EQUIPMENT**

- E.1 3130 capillary electrophoresis instrument  
E.2 3130 Data Collection Software version 3.0 or version 4.0

### **F. PROCEDURES**

*Note: 3130 protocols and Results Groups can also be imported from one 3130 computer to another 3130 computer.*

- F.1 In Module Manager, select "New". Select "Regular" in the Type drop-down list, and select "HIDFragmentAnalysis36\_POP4" in the Template drop-down list.
- F.2 Confirm that the injection time is correct i.e. 3, 5 or 8 seconds; and that the voltage is 3kV. The run time for GlobalFiler, PowerPlex 16 HS and YFiler samples is 1500, 1800 and 1680 seconds, respectively. See below for additional parameters that must be used when creating a GlobalFiler, PowerPlex 16 HS and YFiler module.

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Washoe County Sheriff's Office - Forensic Science Division  
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Name	Value	Range
Oven_Temperature	60	18..65 Deg. C
Poly_Fill_Vol	4840	4840..38000 steps
Current_Stability	5.0	0..2000 uAmps
PreRun_Voltage	15.0	0..15 kVolts
Pre_Run_Time	180	1..1000 sec.
Injection_Voltage	3.0	1..15 kVolts
Injection_Time	3	1..600 sec.
Voltage_Number_Of_Steps	40	1..100 nk
Voltage_Step_Interval	15	1..60 sec
Data_Delay_Time	1	1..3600 sec.
Run_Voltage	15.0	0..15 kVolts
Run_Time	1800	300..14000 sec.

- F.3 Give a descriptive name to your run module, for example, PP16HS-5sec. Select OK.
- F.4 In the Protocol Manager, select “New”. Type a name for your protocol; for example, PowerPlex 16 HS-5sec. Select “Regular” in the Type drop-down list, and select the run module that was created in the previous step in the Run Module drop-down list.
- F.5 Select “J6” in the Dye-Set drop-down list for GlobalFiler samples, “F” for PowerPlex 16 HS samples and “G5” for Yfiler samples.
- F.6 Select OK.

## G. INTERPRETATION GUIDELINES

N/A

## H. REFERENCES

- H.1 Applied Biosystems 3130 Genetic Analyzer, Getting Started Guide
- H.2 PowerPlex 16 HS System Technical Manual
- H.3 GlobalFiler PCR Amplification Kit User Guide, 2014, Applied Biosystems by Life Technologies

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